

REMARKS

Claims 1-61 are pending in the present application. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 102(e), Anticipation

The Examiner has rejected claims 1-61 under 35 U.S.C. § 102(e) as being anticipated by *Dunham et al.* (U.S. patent number 6,714,952). This rejection is respectfully traversed.

With regard to claims 1, 11, 17, 24, 30, 40, 46 and 56, the Examiner stated:

As to claims 1, 11, 17, 24, 30, 40, 46, 56 Dunham teaches a system which including 'data processing system for backing up data' [see Abstract], Dunham is directed to backup and restore of network file server, more specifically backup and restoration of data files that are associated with application programs [see Abstract], 'responsive to a request to backup data associated with an application' [col 2, line 46-51], responsive to a request to backup data associated with an application corresponds to performing data backup operations that are associated with the data and respective application as detailed in col 2, line 46-51; querying a data store containing meta data regarding files associated with the application' [col 2, line 39-43, col 3, line 7-17, col 5, line 63-67, col 6, line 1-11, col 7, line 30-38]; 'data store includes meta data describing the files accessed by the application' [col 5, line 21-25, col 6, line 50-56, col 7, line 11-15, fig 1-2], *Dunham* specifically teaches metadata server associated with file(s) data and their respective attributes as detailed in fig 2-3, col 7, line 11-15; 'receiving a result in response to querying the data store' [col 7, line 39-49, line 58-60], Duham teaches particularly file system residing file servers executing specific instructions, which file system to be accessed; 'backing up the files identified in the result to a storage system' [col 8, line 1-6].

Furthermore, Duham also teaches the limitation of Claims 11,24,40,56 'copying of the files to a backup location' [col 2, line 48-51, col 8, line 1-3], transferring data and metadata to the backup storage location corresponds to copying of the file to a backup location as detailed in col 8, line 1-3, fig 4.

Office Action dated April 5, 2004, pages 3-4.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). The *Dunham* reference cited by the Examiner does not anticipate the present invention as recited in claim 1, because *Dunham* fails to teach each and every element of the claim.

Independent claim 1, which is representative of independent claims 11, 17, 24, 30, 40, 46, and 56 with regard to similarly recited subject matter, reads as follows:

1. A method in a data processing system for backing up data, the method comprising:
 - responsive to a request to backup data associated with an application, querying a data store containing meta data regarding files associated with the application, wherein the data store includes meta data describing the files accessed by the application;
 - receiving a result in response to querying the data store; and
 - backing up the files identified in the result to a storage system.

Claim 1 of the present invention recites the feature of responding to “a request to backup data associated with an application, querying a data store containing metadata regarding files associated with the application, wherein the data store includes metadata describing the files accessed by the application.”

In particular, claim 1 recites having “meta data regarding files associated with the application” and “meta data describing the files accessed by the application.” Metadata files are files that describe data files. Metadata files are used for the efficient management of data files – they are like a single card in a library card catalog. But, unlike the card catalog, there is no widespread consensus on what information metadata files should contain. The information stored in metadata files depends upon the purpose the system administrator has for the information.

Dunham teaches a system wherein a set of metadata files describes the data file in accordance with the different operating systems in a multi-lingual network. There is a metadata file for each operating system that accesses the data file. Each of these metadata files contains information concerning operating system attributes for the data

file. This information in *Dunham* provides a way to backup and restore multiple use data files within multi-lingual computer networks.

The examiner states, "Dunham is directed to backup and restore of network file server, more specifically backup and restoration of data files that are associated with application programs." The Examiner asserts that, "a request to backup data associated with an application" is taught in the following section of *Dunham*:

Described is a technique for a backup and restoration of data in a network that includes a multi-lingual file system and a multi-lingual network file server. Multiple metadata files are associated with a single data file in the network. Provided are services for packaging the metadata as a single parameter of an application programming interface (API) for a particular data file being backed up or restored over a network. These techniques may be used in both full and incremental backups and restores of data over a network.

Dunham, Abstract.

In accordance with another aspect of the invention is a method and a system for performing a data backup operation in a network. A request is received at a backup server to backup data from a storage area. In response to the request, a data file is transferred to the backup server from a file server.

Dunham, col. 2, lines 46-51.

In the passages above, *Dunham* teaches a method of backing up and restoring data files that are used by multi-linguistic computer networks. *Dunham* employs metadata files that store useful information about the attributes of data files and that aid in the translation of the data files into different languages. However, the Abstract of *Dunham* does not indicate that an association is present between the application and the data file. On the contrary, the Abstract and the sections cited in the office action above indicate a general backup of data files with no teaching of an association of the data file to the application. The data files in the *Dunham* backup method may or may not be associated with a particular application. No method is taught in *Dunham* to make this association. Therefore, the Abstract and lines quoted above do not support the examiner's allegation that *Dunham* contains a feature "responsive to a request to backup data associated with an

application.” Neither this section, nor any other section, of *Dunham* mentions the association between data files and their applications.

Instead, the cited sections specifically teach that metadata files are associated with a single data file. Nowhere does this cited section teach or disclose that the backup data is associated with an application. Nowhere does this cited reference teach that the metadata describes the files access by the application associated with the data.

Furthermore, “a request to backup data associated with an application” does not correspond to “performing a data backup operation that are associated with the data and respective application,” as the examiner alleges. Backing up data associated with an application indicates that the data backed up is particularly associated with an application. As an example, a user could request the backup of all the files associated with a Microsoft Word file. The backup application would respond with a list of all files that are associated with Microsoft Word exclusively, no matter what directory the data file was in or what file extension the data file had.

In contrast, the examiner’s statement, “a backup operation that is associated with the data and respective application,” is not indicative of a known association between a data file and a particular application. Such an operation could backup data files whether or not the files are associated with a particular application or such an operation could backup an application whether or not it is associated with a data file. In such an operation, all files in a directory would be backed up whether or not they were Microsoft Word files, and Microsoft Word files would not be backed up that were in an unexpected directory or had a nonconforming file extension.

Furthermore, claim 1 recites the feature of querying a data store containing metadata regarding data files associated with the application. The examiner states that this feature is taught in the following sections of *Dunham*:

A request is issued by a client for the data file and the one or more metadata files from a file storage area. A file server obtains each of the one or more metadata files. In response to the request, the one or more metadata files are provided to said client in a single response.

Dunham, col. 2, lines 39 to 43.

A file server system provides data to be backed up to the backup computer system. A metadata service include in the file server system responds using remote procedure calls to requests from the backup agent for metadata. The metadata service provides at least two metadata files for a data file being backed up as a parameter included in a first of the remote procedure calls. Each of the two metadata files includes file attributes corresponding to a different file system used by one of the at least two computer systems. A network connection between the backup agent and the metadata service transmits the at least two metadata files. [Emphasis added]

Dunham, col. 3, lines 7 to 17.

The catalogue 32 is generally a description of the various files and associated attributes or metadata for each of the files included in backup storage devices 22a and 22b. Generally, the catalogue 32 may include, for example, different file names by which a single set of file data may be referred to in accordance with each of the hosts 12a and 12b. For example, if host 12a is an NT system and host 12b is a UNIX system, they may have different file naming conventions for referencing the same set of data. Both naming conventions referencing the same set of data may be included in the catalogue 32. Also, associated metadata or file attributes are included in the catalogue 32. Metadata or file attributes may include, for example, how the file may be accessed by various users, the date last modified, the number of file storage extents associated with this particular file, and the like. [Emphasis added]

Dunham, col. 5, lines 63 to col. 6, line 11.

A request to backup data may be generated, for example, by someone who is an administrator on the backup/restore server when performing a full or incremental backup of the system. Additionally, a remote request from one of the hosts connected via network 14, such as 12a, may also initiate the request to backup data sent to the backup/restore server 30 at step 50. It should be noted that in this particular embodiment, the scheduler 34 receives the request.

Dunham, col. 7, lines 30 to 38.

As shown by the passages above, *Dunham* teaches a backup method for a network that has more than one system language, and that several metadata files can be delivered in a

single request. The passages also teach that at least two metadata files corresponding to at least two different computer systems are transmitted on a network connection. The passages then describe the catalog as generally a system of storing the various data files and metadata files associated with them. The passage goes on to list information that could be contained in the metadata files and therefore the catalog. However, associations of applications with the data files are not included in this list, nor mentioned anywhere in the *Dunham* reference. Further, *Dunham*'s method teaches that more than one computer system must be included in the network, contrary to the present invention that can function on a single computer. *Dunham* teaches that the set of metadata files that are associated with a data file are cataloged, and that the catalog includes different file names (following the naming conventions of each operating system) for a single set of file data. In contrast, claim 1 includes the application or applications associated with the data file in the data store.

Furthermore, *Dunham* does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. *Dunham* actually teaches away from the presently claimed invention because it teaches a multi-computer, multi linguistic environment as opposed to a single or multiple computer system environment taught in the presently claimed invention. Also, *Dunham* teaches away from the presently claimed invention because it teaches a reliance on file naming conventions of application programs to identify the data files associated with the application. Absent the examiner pointing out some teaching or incentive to implement *Dunham* in a single computer environment, with no reliance on a file naming convention, one of ordinary skill in the art would not be led to modify *Dunham* to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify *Dunham* in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the Applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

In view of the above, Applicants submit that independent claims 1, 11, 17, 24, 30, 40, 46, and 56 are not taught by *Dunham*. Claims 2-10, 12-16, 18-22, 25-29, 31-39, 41-45, 47-55, 57-61 are dependent claims depending on independent claims 1, 11, 17, 24, 30, 40, 46, and 56, respectively. These dependent claims are patentable over *Dunham*

for the same reasons as the independent claims and contain additional features not shown in the cited reference. For example, claims 2, 12, 18, 24, 31, 41, 47, and 57 teach using a standard backup program to backup the data files associated with an application. As stated above, the data files backed up in the *Dunham* reference may or may not be associated with a particular application. The feature of backing up data files associated with an application with a standard backup program is not taught in *Dunham*.

Therefore, the rejection of claims 1-61 under 35 U.S.C. § 102(c) has been overcome.

II. Conclusion

It is respectfully urged that the subject application is patentable over *Dunham* and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: 7/2/04

Respectfully submitted,



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